

KOMATSU LIMITED

EXECUTIVE ORDER U-R-005-0207 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)				
2005	5KLXL03.3JA3	3.3	Diesel	8000				
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION					
	Direct Diesel Injec	ction	Crane, Loader, Tractor, Dozer, Pum	p, Compressor, Generato				

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER	EMISSION STANDARD			I	EXHAUST (g/kw-l		OPACITY (%)			
CLASS	CATEGORY		нс	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 <u><</u> kW < 75	Tier 2	ats	N/A	N/A	7.5	5.0	0.40	20	15	50
		CERT			6.7	2.2	0.23	7	9	10

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

_ day of November 2004.

Allen Lyons, Chief

Mobile Source Operations Division

PHACHMENT PS 10+1 LARGE ENGINE MODEL SUMMARY

4-6-005-0207

2/1/05

Manufacturer: KOMATSU Ltd.

Process Code: Running Change.

Manufacturer Family Name:

4D95LE-3

8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930 Σ E 7 8 7.Fuel Rate: mm/stroke@peak t orque 14 6.Torque @ RPM (SEA Gross) 5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only) mm/stroke @ peak HP (for diesel only) 4.Fuel Rate: 3.BHP@RPM (SAE Gross) EPA Engine Family: 5KLXL03.3JA3 2.Engine Model 1.Engine Code

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158@1600	158@1600 158@1600		2001	03010011	149@1650		153@1600		158@1600			148@1800		158@1600			
200	25		73	22		200		77	27		1-7	26		23)	
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	65@2600	00020000		0000000		28(0)2200	28(0)2200		54@2350		60@2350		8E@2800			60@2200	
	7 H 1300 K	4D95LE-3		4D95LE-3		4095 F-3	4D95LE-3		4D95LE-3		4D951 E-3		409265			1005 F.3	470071
1.000 to 2000	2C05			2006		2010	20.02		2013	202		4107		2015	207	0,00	222